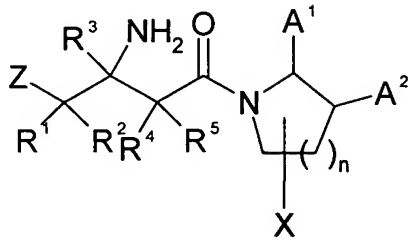
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A compound of formula (I)



(I)

or a pharmaceutically acceptable salt thereof, wherein

Z is selected from the group consisting of
phenyl;
naphthyl;
C_{3-7} cycloalkyl;
heterocycle; and
heterobicycle;
wherein Z is optionally substituted with one, or independently from each other, more of
halogen;
CN;
OH;
=O, where the ring is at least partially saturated;
C_{1-6} alkyl, optionally substituted with one or more F; and
O-C_{1-6} alkyl, optionally substituted with one or more F;

R^1, R^2, R^4, R^5 are independently from each other selected from the group consisting of
H;
F;

OH;

C_{1-6} alkyl, optionally substituted with one or more F; and

O-C_{1-6} alkyl, optionally substituted with one or more F;

and/or R^1 and R^2 optionally form together C_{3-7} cycloalkyl, which is optionally substituted with one or more F;

and/or R^2 and R^3 optionally form together C_{3-7} cycloalkyl, which is optionally substituted with one or more F;

and/or R^3 and R^4 optionally form together C_{3-7} cycloalkyl, which is optionally substituted with one or more F;

and/or R^4 and R^5 optionally form together C_{3-7} cycloalkyl, which is optionally substituted with one or more F;

R^3 is H or C_{1-6} alkyl;

X is selected from the group consisting of

H;

F; and

C_{1-6} alkyl, optionally substituted with one or more F;

n is 0, 1 or 2;

A^1, A^2 are independently from each other selected from the group consisting of

H;

halogen;

C_{1-6} alkyl, optionally substituted with one or more F; and

R^6; provided that one of A^1 and A^2 is R^6;

R^6 is -C(R^7R^8)-Y-T;

R^7, R^8 are independently from each other selected from the group consisting of

H;

F; and

C_{1-6} alkyl, optionally substituted with one or more F;

and/or R^7 and R^8 optionally form together C_{3-7} cycloalkyl, which is optionally substituted with one or more F;

Y is selected from the group consisting of

-O-;

-C_{1-6} alkyl-O-;

-N(R^9)-;

-C_{1-6} alkyl-N(R^9)-

-S-;

-C_{1-6} alkyl-S-;

-S(O)-;

-C_{1-6} alkyl-S(O)-;

-$S(O)_2$-; and

-C_{1-6} alkyl-$S(O)_2$-;

wherein each C_{1-6} alkyl is optionally substituted with one or more F;

R^9, T are independently from each other T^1-T^2 or T^2;

T^1 is selected from the group consisting of

-C_{1-6} alkyl-;

-C_{1-6} alkyl-O-

-C_{1-6} alkyl-N(R^{10})-

-C(O)-;

-C(O)-C_{1-6} alkyl-;

-C(O)-C_{1-6} alkyl-O-;

-C(O)-C_{1-6} alkyl-N(R^{10})-;

-C(O)O-;

-C(O)O-C_{1-6} alkyl-;

-C(O)O-C_{1-6} alkyl-O-;

-C(O)O-C_{1-6} alkyl-N(R^{10})-;

-C(O)N(R^{10})-;

-C(O)N(R^{10})-C_{1-6} alkyl-;

-C(O)N(R^{10})-C_{1-6} alkyl-O-;

-C(O)N(R^{10})-C_{1-6} alkyl-N(R^{11})-;

-$S(O)_2$-;

-$S(O)_2$-C_{1-6} alkyl-;

-$S(O)_2$-C_{1-6} alkyl-O-; and

-$S(O)_2$-C_{1-6} alkyl-N(R^{10})-;

wherein each C_{1-6} alkyl is optionally substituted with one or more F;

R^{10}, R^{11} are independently from each other H or C_{1-6} alkyl, optionally substituted with one or more F;

T^2 is selected from the group consisting of

H;

CF_3;

phenyl;

naphthyl;

wherein phenyl and naphthyl are optionally substituted with one, or independently from each other, more of

halogen;

CN;

R^{12};

COOH;

OH;

$C(O)NH_2$;

$S(O)_2NH_2$;

$COOT^3$;

OT^3;

$C(O)NHT^3$;

$S(O)_2NHT^3$; or

T^3;

C_{3-7} cycloalkyl;

heterocycle; and

heterobicycle;

wherein C_{3-7} cycloalkyl, heterocycle and heterobicycle are optionally substituted with one, or independently from each other, more of

halogen;

CN;

R^{13};

OH;

=O, where the ring is at least partially saturated;

NH_2

COOH;

$C(O)NH_2$;

$S(O)_2NH_2$;

$COOT^3$;

OT^3;

$C(O)NHT^3$;

$S(O)_2NHT^3$;

NHT^3; or

T^3;

whereby when R^9 is T^1-T^2 and represents -C_{1-6} alkyl and T is T^1-T^2 and represents -C_{1-6} alkyl then R^9 and T may form together a 3 to 7 membered cyclic group containing 1 N;

R^{12} is selected from the group consisting of

C_{1-6} alkyl;

O-C_{1-6} alkyl;

COO-C_{1-6} alkyl;

OC(O)- C_{1-6} alkyl;

$C(O)N(R^{15})$- C_{1-6} alkyl;

$S(O)_2N(R^{17})$-C_{1-6} alkyl;

S(O)-C_{1-6} alkyl;

$S(O)_2$-C_{1-6} alkyl; and

$N(R^{18})S(O)_2$-C_{1-6} alkyl;

wherein each C_{1-6} alkyl is optionally substituted with one, or independently from each other, more of F, $COOR^{19}$, $C(O)N(R^{20}R^{21})$, $S(O)_2N(R^{22}R^{23})$, OR^{24}, $N(R^{25}R^{26})$, T^3, $O\text{-}T^3$ or $N(R^{27})\text{-}T^3$;

R^{13} is selected from the group consisting of

C_{1-6} alkyl;

$O\text{-}C_{1-6}$ alkyl;

$N(R^{14})\text{-}C_{1-6}$ alkyl;

$COO\text{-}C_{1-6}$ alkyl;

$OC(O)\text{-}\ C_{1-6}$ alkyl;

$C(O)N(R^{15})\text{-}\ C_{1-6}$ alkyl;

$N(R^{16})\text{-}C(O)\text{-}C_{1-6}$ alkyl;

$S(O)_2N(R^{17})\text{-}C_{1-6}$ alkyl;

$S(O)\text{-}C_{1-6}$ alkyl;

$S(O)_2\text{-}C_{1-6}$ alkyl; and

$\text{-}N(R^{18})S(O)_2\text{-}C_{1-6}$ alkyl;

wherein each C_{1-6} alkyl is optionally substituted with one, or independently from each other, more of F, $COOR^{19}$, $C(O)N(R^{20}R^{21})$, $S(O)_2N(R^{22}R^{23})$, OR^{24}, $N(R^{25}R^{26})$, T^3, $O\text{-}T^3$ or $N(R^{27})\text{-}T^3$;

R^{14}, R^{15}, R^{16}, R^{17}, R^{18}, R^{19}, R^{20}, R^{21}, R^{22}, R^{23}, R^{24}, R^{25}, R^{26}, R^{27} are independently from each other H or C_{1-6} alkyl;

T^3 is selected from the group consisting of

phenyl;

naphthyl;

wherein phenyl and naphthyl are optionally substituted with one, or independently from each other, more of

halogen;

CN;

COOH;

OH;

$C(O)NH_2$;

$S(O)_2NH_2$;

C_{1-6} alkyl;

O-C_{1-6} alkyl;

COO-C_{1-6} alkyl;

OC(O)- C_{1-6} alkyl;

C(O)N(R^{28})- C_{1-6} alkyl;

$S(O)_2N(R^{29})$-C_{1-6} alkyl;

$S(O)_2$-C_{1-6} alkyl; or

$N(R^{30})S(O)_2$-C_{1-6} alkyl;

heterocycle;

heterobicycle; and

C_{3-7} cycloalkyl;

wherein C_{3-7} cycloalkyl, heterocycle and heterobicycle are optionally substituted with one, or independently from each other, more of

halogen;

CN;

OH;

=O, where the ring is at least partially saturated;

NH_2

COOH;

$C(O)NH_2$;

$S(O)_2NH_2$;

C_{1-6} alkyl;

O-C_{1-6} alkyl;

$N(R^{31})$-C_{1-6} alkyl;

COO-C_{1-6} alkyl;

OC(O)- C_{1-6} alkyl;

C(O)N(R^{32})- C_{1-6} alkyl;

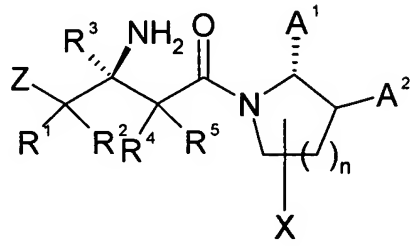
$N(R^{33})$-C(O)-C_{1-6} alkyl;

$S(O)_2N(R^{34})$-C_{1-6} alkyl;

$S(O)_2$-C_{1-6} alkyl; or

-$N(R^{35})S(O)_2$-C_{1-6} alkyl.

2. (Original) A compound according to claim 1 of formula (Ia)



(Ia)

or a pharmaceutically acceptable salt thereof, wherein Z, R^1-R^5, A^1, A^2, n and X have the meaning as indicated in claim 1.

3. (Currently amended) A compound according to claim 1 ~~or 2~~, wherein Z is phenyl or heterocycle and Z is optionally substituted independently from each other with up to 2 of Cl, F, CN, CH_3 or OCH_3.

4. (Currently amended) A compound according to ~~any one of the preceding claims~~ claim 1, wherein R^1, R^2, R^4, R^5 are independently from each other selected from the group consisting of H, F, OH CH_3, OCH_3.

5. (Currently amended) A compound according to ~~any one of the preceding claims~~ claim 1, wherein R^3 is H.

6. (Currently amended) A compound according to ~~any one of the preceding claims~~ claim 1, wherein X is H, F or CH_3.

7. (Currently amended) A compound according to ~~any one of the preceding claims~~ claim 1, wherein n is 1.

8. (Currently amended) A compound according to ~~any one of the preceding claims~~ claim 1, wherein A^1 is R^6 and A^2 is H, F or CH_3.

9. (Currently amended) A compound according to ~~any one of the preceding claims~~ claim 1, wherein R^6 is -CH_2-Y-T.

10. (Currently amended) A compound according to ~~any one of the preceding claims~~ claim 1, wherein Y is -O-, -N(R^9)- or -S(O)$_2$-.

11. (Currently amended) A compound according to ~~any one of the preceding claims~~ claim 1, wherein R^9 is selected from the group consisting of H, CH_3, COOH, $COOCH_3$, $C(O)NH_2$, $C(O)N(CH_3)_2$, and $S(O)_2CH_3$.

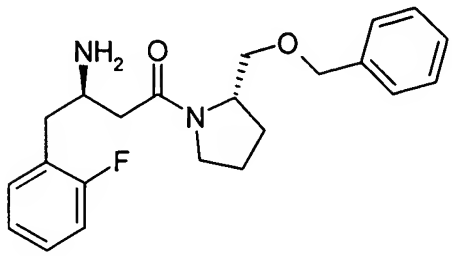
12. (Currently amended) A compound according to ~~any one of the preceding claims~~ claim 1, wherein T is T^1-T^2 or T^2 and wherein T^1 is selected from the group consisting of
-CH_2-;
-C(O)-;
-C(O)-CH_2-;
-C(O)O-;
-C(O)O-CH_2-;
-C(O)NH-;
-C(O)NH-CH_2-;
-S(O)$_2$-; and
-S(O)$_2$-CH_2-.

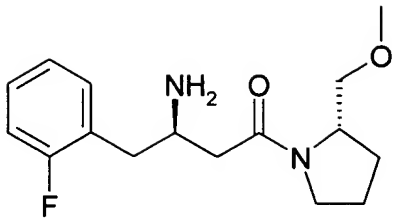
13. (Original) A compound according to claim 12, wherein T is T^1-T^2 or T^2 and wherein T^1 is selected from the group consisting of -C(O)-; -CH_2-; -S(O)$_2$-; and -C(O)NH-.

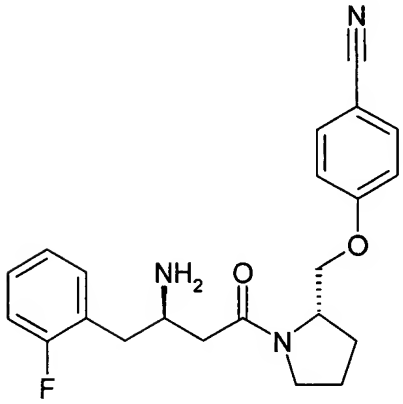
14. (Currently amended) A compound according to ~~any one of the preceding claims~~ claim 1, wherein R^6 is -CH_2-N(R^{36})-T, and wherein R^{36} is H or $S(O)_2CH_3$.

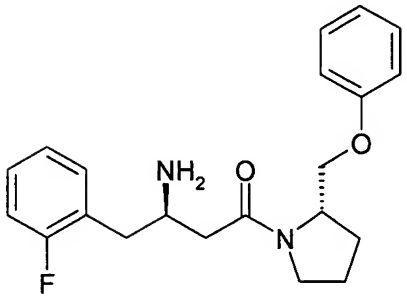
15. (Currently amended) A compound according to ~~any one of the preceding claims~~ claim 1, wherein T^2 is phenyl or heterocycle.

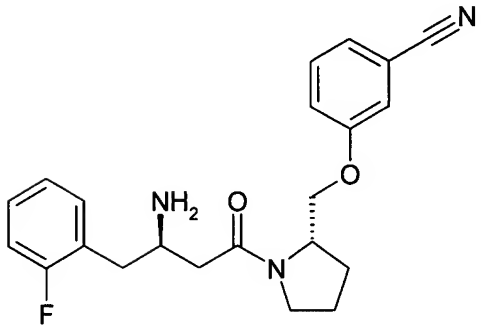
16. (Original) A compound according to claim 1 selected from the group consisting of

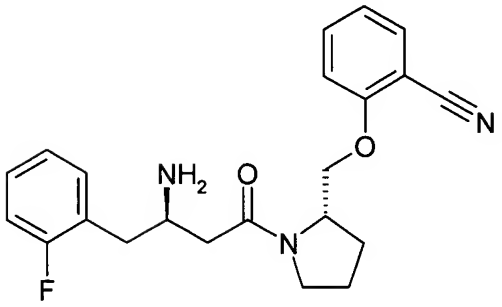

NH2
O
O
N
F

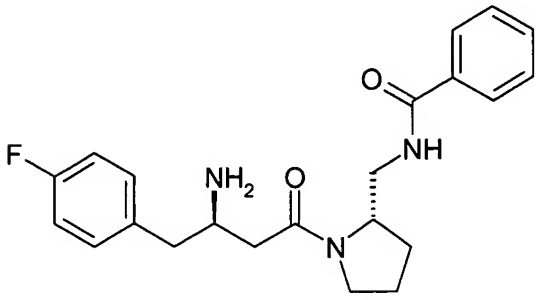

O
NH2
O
N
F

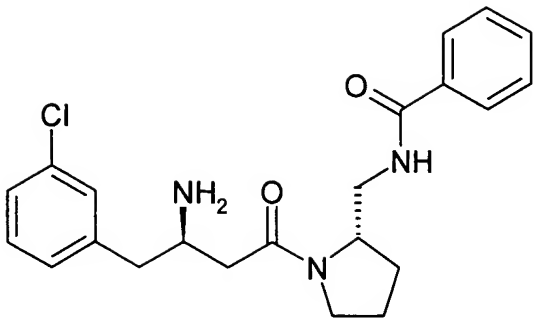

N
O
NH2
O
N
F

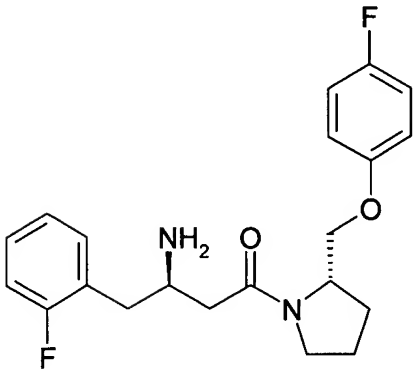

O
NH2
O
N
F

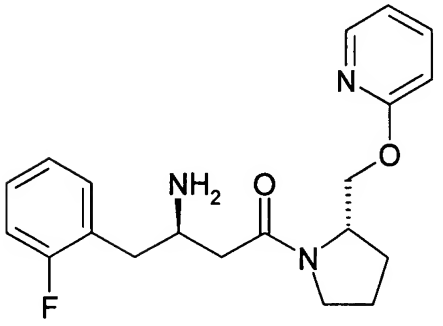

N
O
NH2
O
N
F

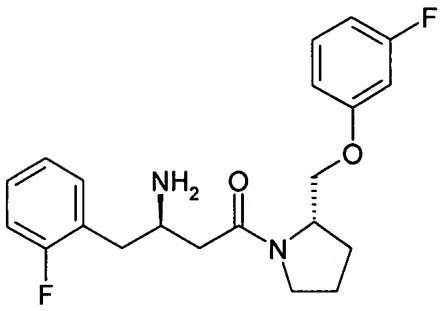

N
O
NH2
O
N
F

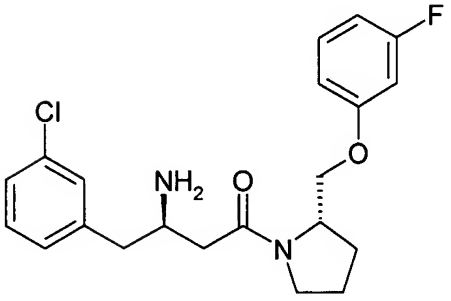


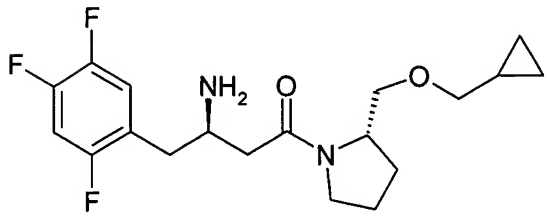


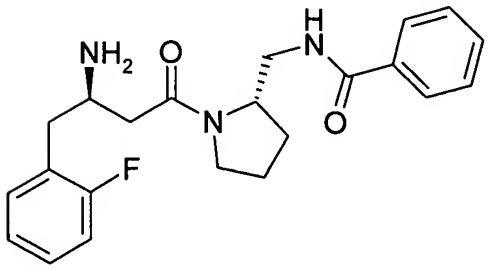


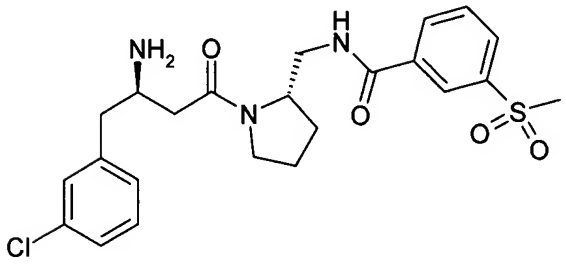


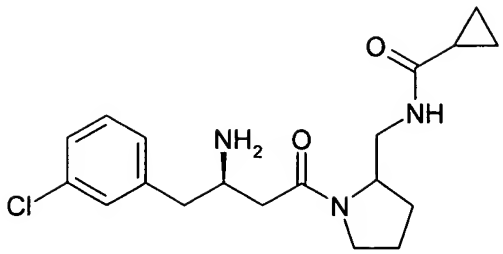


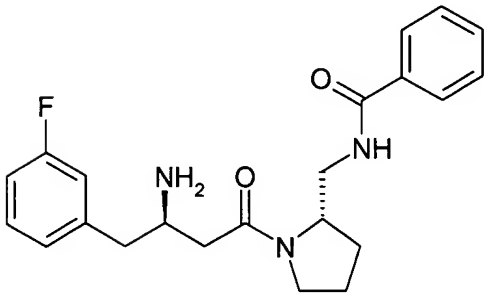


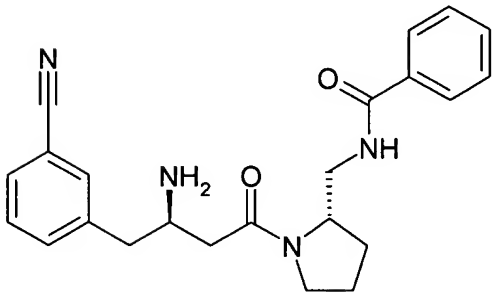


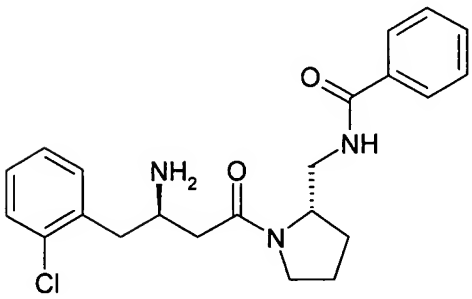


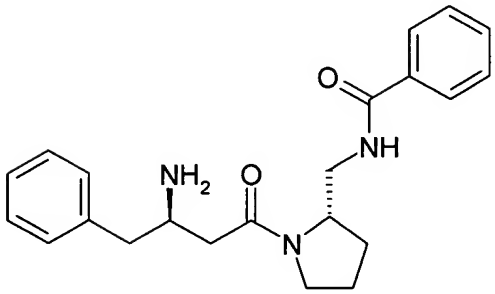


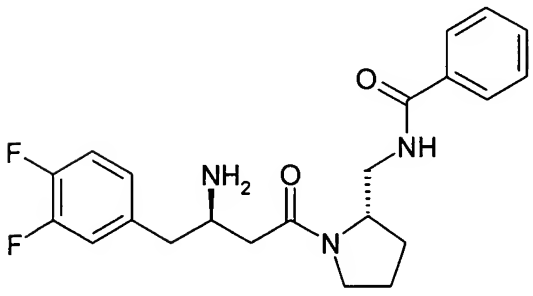


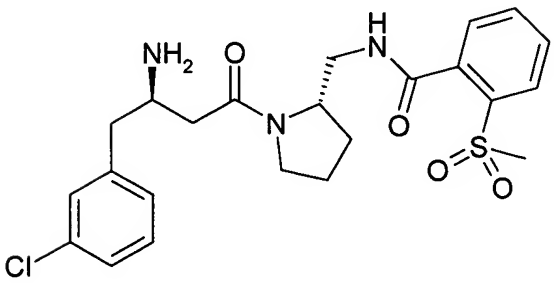


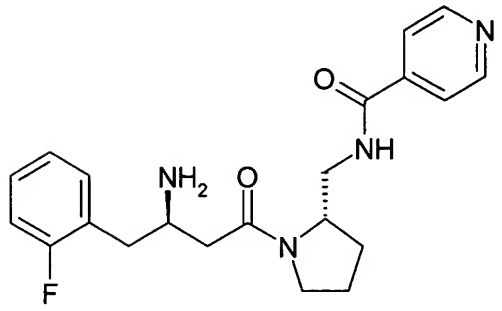


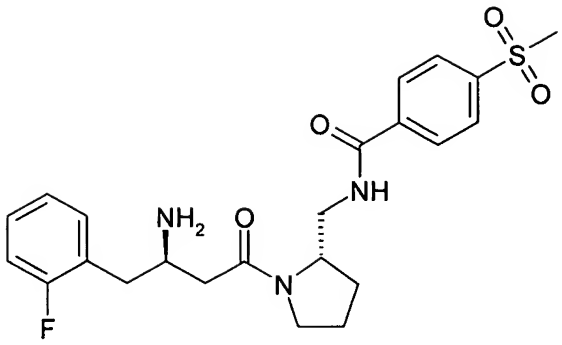


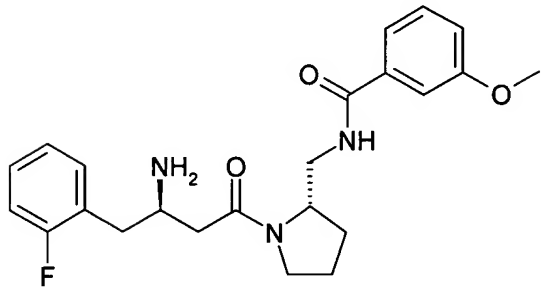


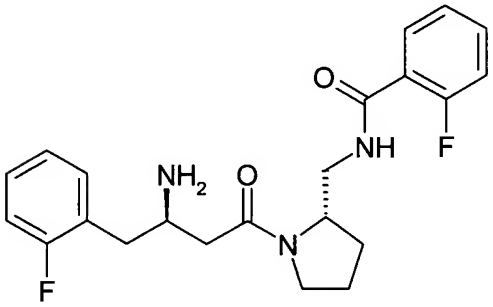


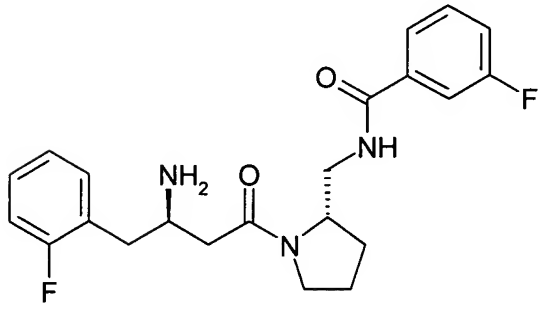


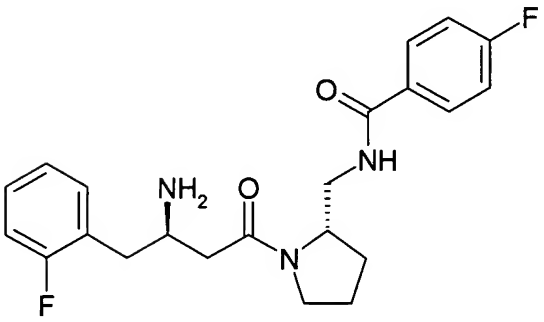


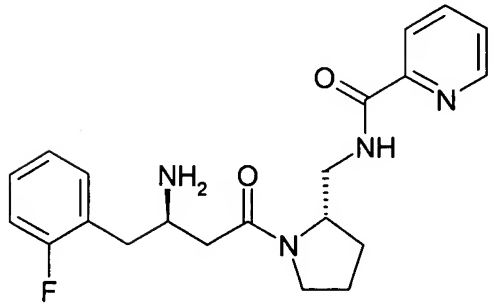


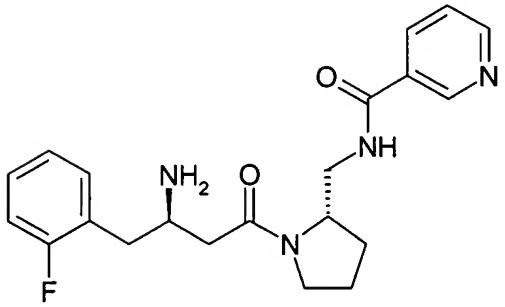


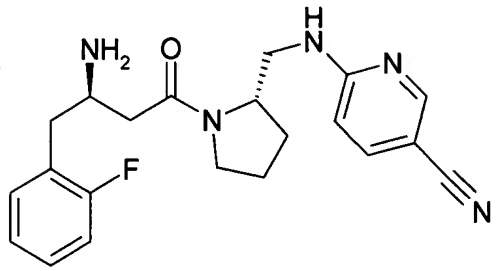


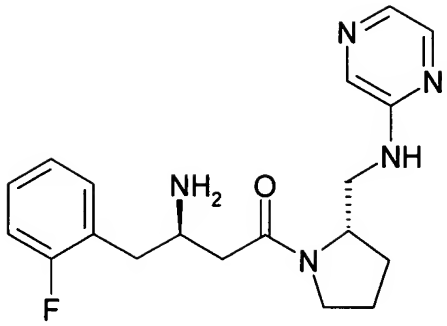


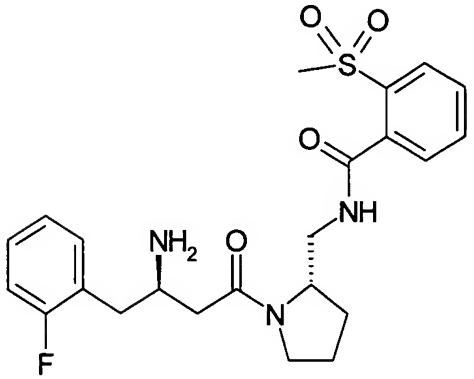


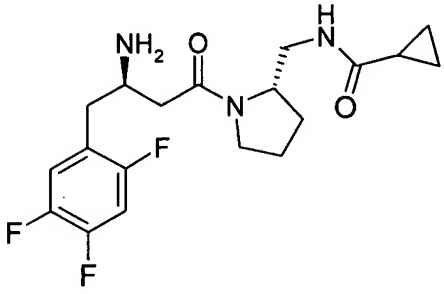


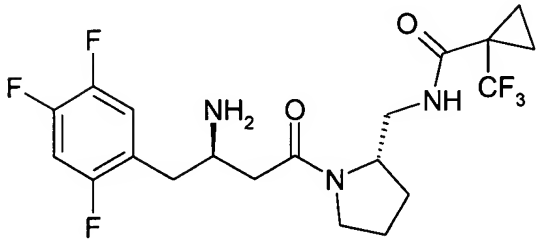


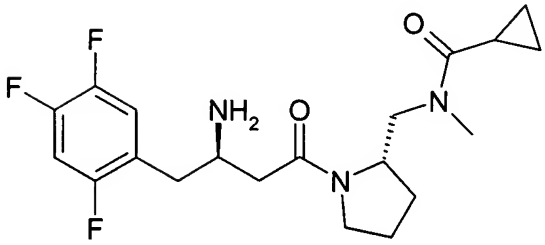


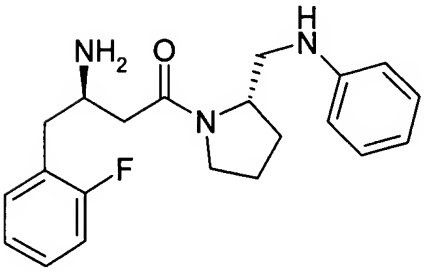


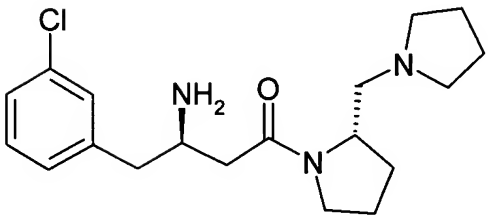


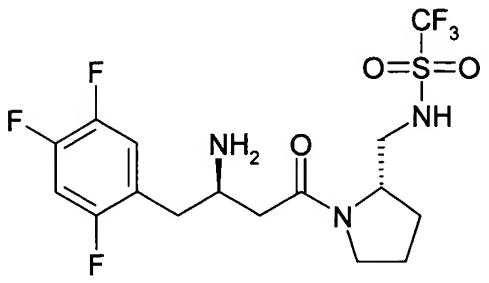


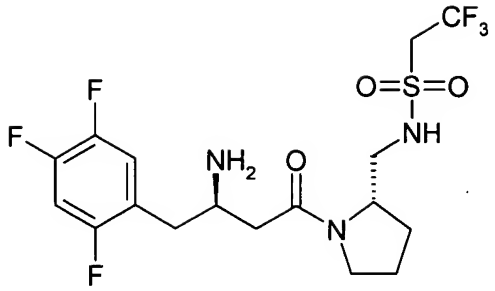


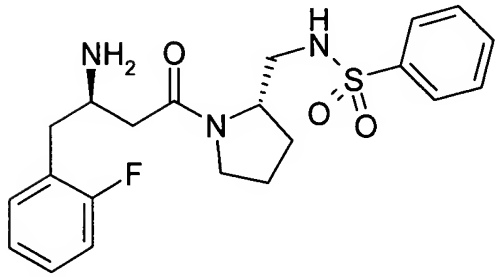


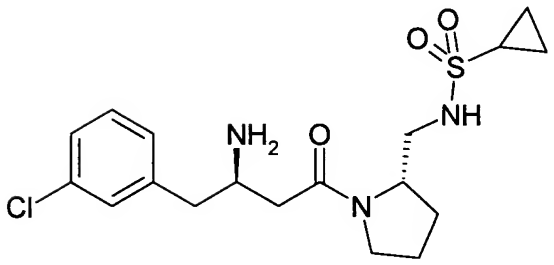


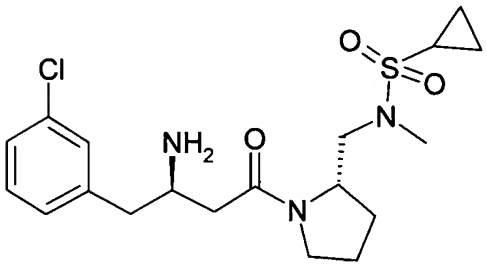


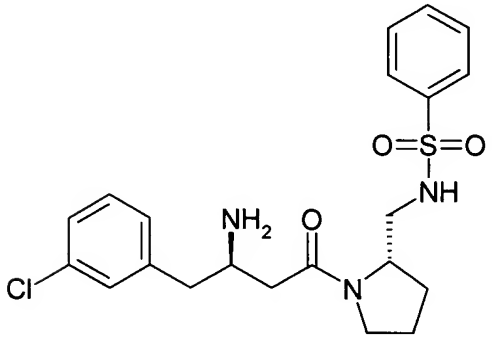


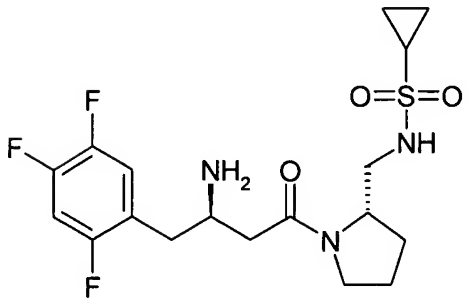


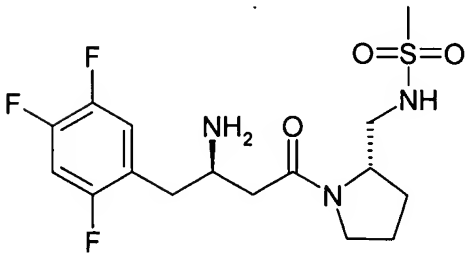


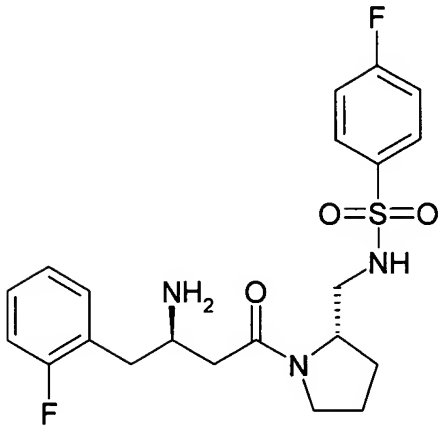


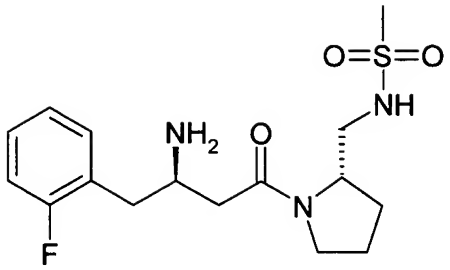


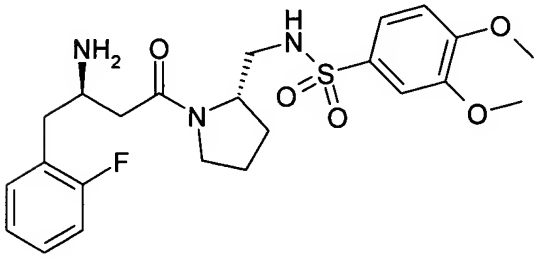


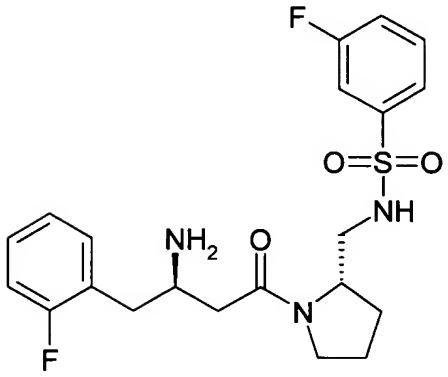


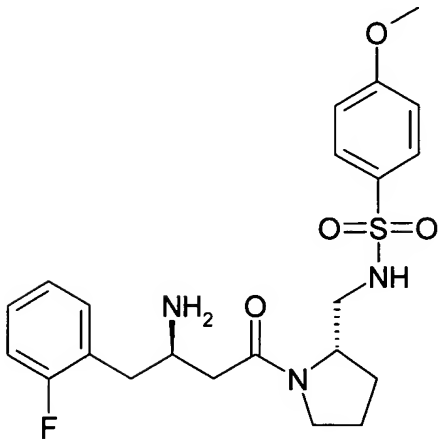


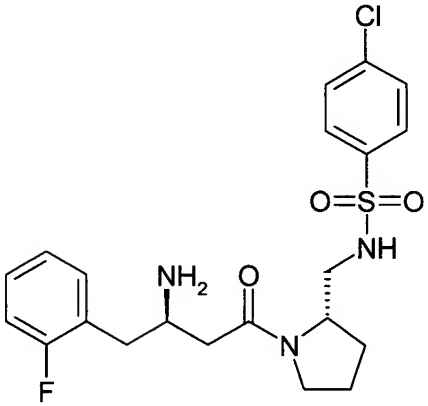


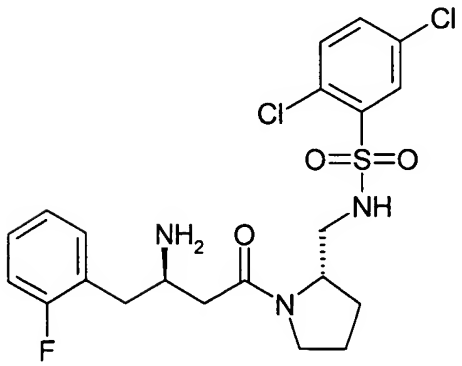


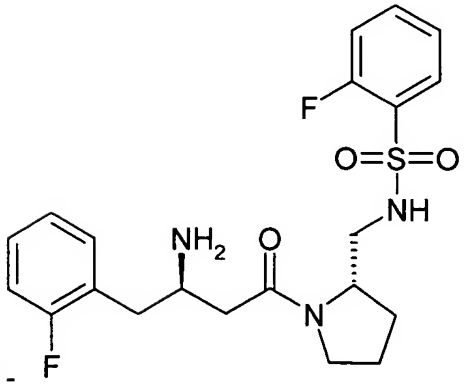


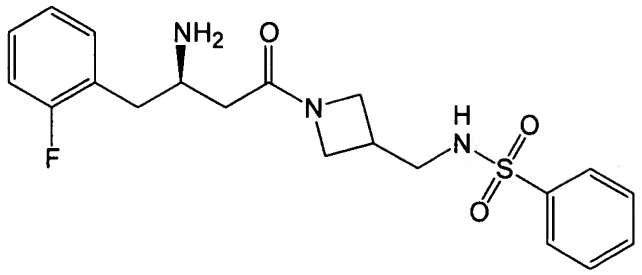


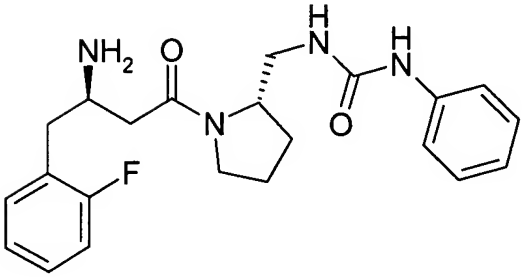


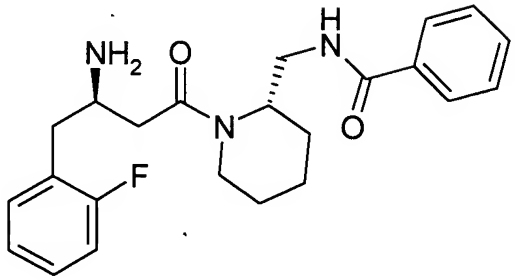


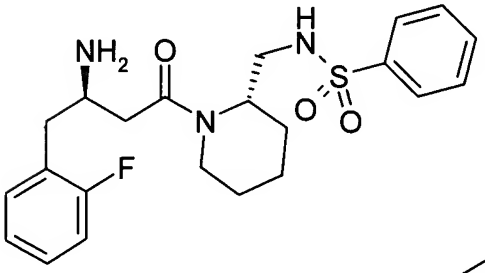


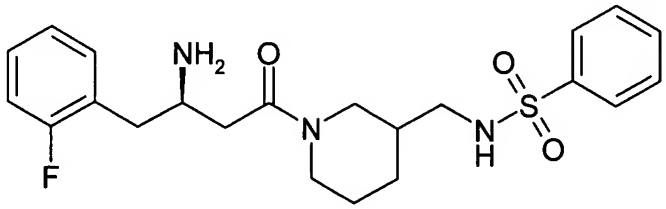


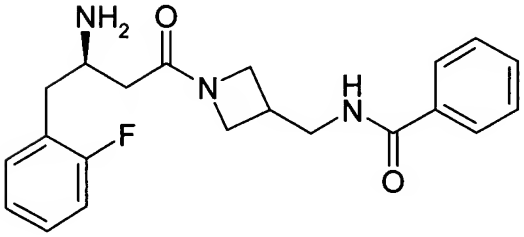


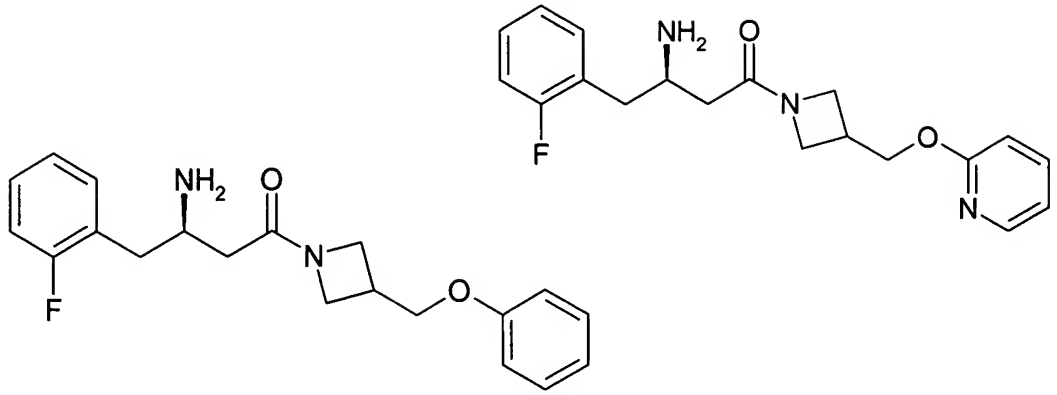


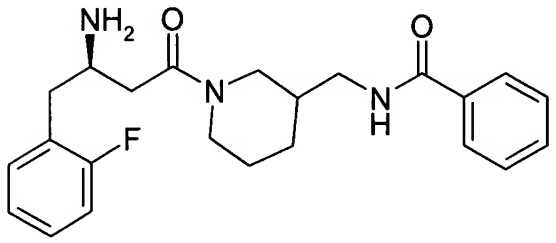


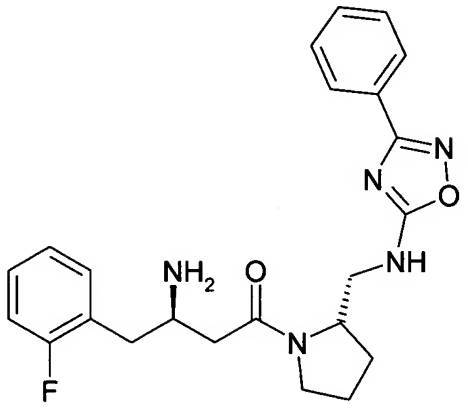


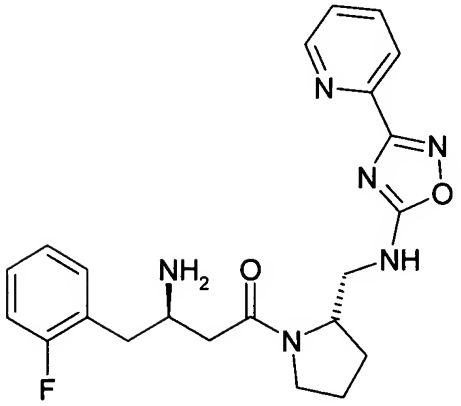


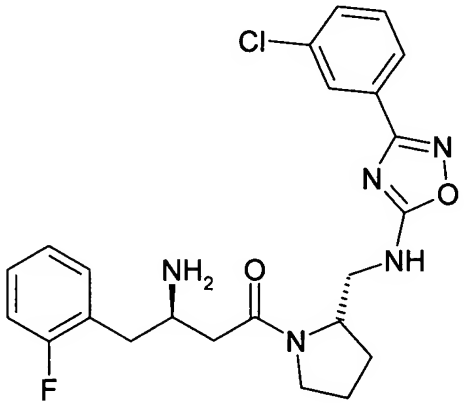


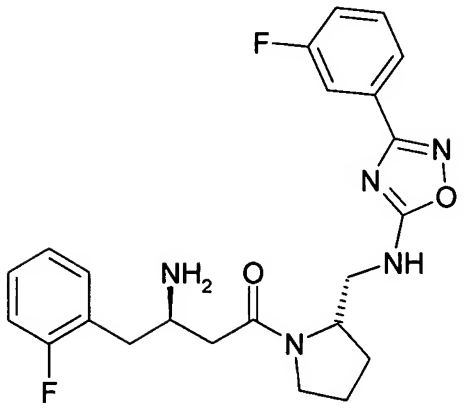


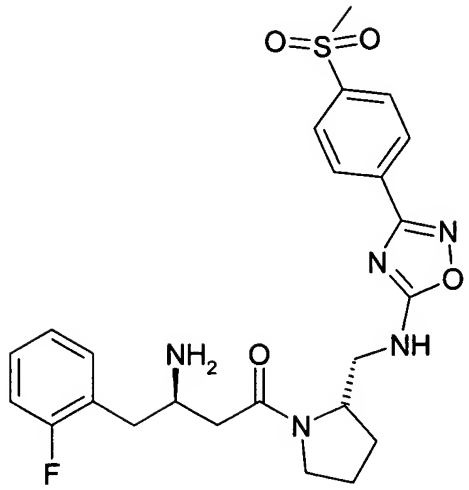


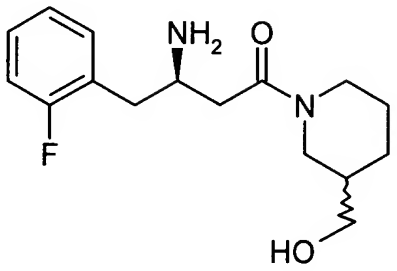












or a pharmaceutically acceptable salt thereof.

17. (Currently amended) A prodrug compound of a compound according to ~~any one of the claims 1 to 16~~ claim 1.

18. (Currently amended) A pharmaceutical composition comprising a compound or a pharmaceutically acceptable salt thereof according to ~~any one of the claims 1 to 17~~ claim 1 together with a pharmaceutically acceptable carrier.

19. (Currently amended) A pharmaceutical composition according to claim 18, comprising one or more additional compounds or pharmaceutically acceptable salts thereof selected from

the group consisting of another of said compound of formula (I) ~~according to any one of the claims 1 to 17~~; another DPP-IV inhibitor; insulin sensitizers; PPAR agonists; biguanides; protein tyrosinephosphatase-IB (PTP-1B) inhibitors; insulin and insulin mimetics; sulfonylureas and other insulin secretagogues; a-glucosidase inhibitors; glucagon receptor antagonists; GLP-1, GLP-1 mimetics, and GLP-1 receptor agonists; GIP, GIP mimetics, and GIP receptor agonists; PACAP, PACAP mimetics, and PACAP receptor 3 agonists; cholesterol lowering agents; HMG-CoA reductase inhibitors; sequestrants; nicotinyl alcohol; nicotinic acid or a salt thereof; PPARa agonists; PPARoly dual agonists; inhibitors of cholesterol absorption; acyl CoA : cholesterol acyltransferase inhibitors; anti-oxidants; PPARo agonists; antiobesity compounds; an ileal bile acid transporter inhibitor; and anti-inflammatory agents.

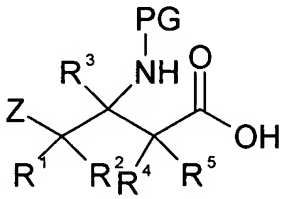
20. (Currently amended) A compound or a pharmaceutically acceptable salt thereof of ~~any one of the claims 1 to 17~~ claim 1 for use as a medicament.

21. (Currently amended) Use of a compound or a pharmaceutically acceptable salt thereof of ~~any of the claims 1 to 17~~ claim 1 for the manufacture of a medicament for the treatment or prophylaxis of non-insulin dependent (Type II) diabetes mellitus; hyperglycemia; obesity; insulin resistance; lipid disorders; dyslipidemia; hyperlipidemia; hypertriglyceridemia; hypercholestrerolemia; low HDL; high LDL; atherosclerosis; growth hormone deficiency; diseases related to the immune response; HIV infection; neutropenia; neuronal disorders; anxiety; depression; tumor metastasis; benign prostatic hypertrophy; gingivitis; hypertension; osteoporosis; diseases related to sperm motility; low glucose tolerance; insulin resistance; ist sequelae; vascular restenosis; irritable bowel syndrome; inflammatory bowel disease; including Crohn's disease and ulcerative colitis; other inflammatory conditions; pancreatitis; abdominal obesity; neurodegenerative disease; retinopathy; nephropathy; neuropathy; Syndrome X; ovarian hyperandrogenism (polycystic ovarian syndrome; Type n diabetes; or growth hormone deficiency.

22. (Currently amended) Use of a compound according to ~~any one of the claims 1 to 17~~ claim 1 as DPP-IV inhibitor.

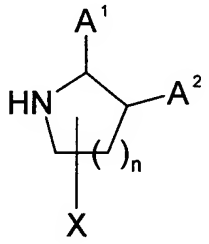
23. (Currently amended) Process for the preparation of a compound according to ~~any one of the claims 1 to 17~~ claim 1, comprising the steps of

- coupling of an amino-protected beta-amino acid of formula (IVa)



(IVa)

wherein PG is a protective group, with an amine of formula (III)



(III)

using standard peptide coupling conditions, reagents and protective groups;

- removing the protective group (PG).

24. (Original) A process according to claim 23, wherein the coupling reagents are 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride (EDC) in combination with 1-hydroxybenzotriazole (HOBt) and a base (triethylamine or diisopropylethylamine) or O-(7-azabenzotriazol-1-yl)-*N,N,N',N'*-tetramethyluronium hexafluorophosphate (HATU) in the presence of a base and the protective group is 9-fluorenylmethoxycarbonyl or *tert*-butoxycarbonyl.

25. (Currently amended) A process according to claim 23 ~~or 24~~, wherein the protective group is removed using diethylamine in dichloromethane in the case of 9-fluorenylmethoxycarbonyl or using acidic conditions in the case of *tert*-butoxycarbonyl.